



## Monitoring Properties

---

This chapter contains the following topics:

- [AAA Servers, page 32-1](#)
- [Device Access, page 32-2](#)
- [Connection Graphs, page 32-4](#)
- [CRL, page 32-6](#)
- [DNS Cache, page 32-7](#)
- [System Resources Graphs, page 32-8](#)

## AAA Servers

This pane allows you to view and refresh AAA server statistics.

### Fields

- **Server Group**—Displays a configured server group, or LOCAL if none have been configured.
- **Protocol**—Displays what protocol the server group uses for AAA.
- **IP Address**—Displays the IP address of the configured AAA server.
- **Status**—Displays the status (Active or Inactive) of the configured AAA server.

Below the list of AAA servers are the statistics for each configured server. You can clear the statistics by clicking **Clear Server Statistics**. You can refresh the server status by clicking **Update Server Status**

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

# Device Access

This pane lets you monitor management sessions, AAA locked out users, and authenticated users. This section includes the following topics:

- [AAA Local Locked Out Users](#)
- [Authenticated Users](#)
- [ASDM/HTTPS Sessions](#)
- [Secure Shell Sessions](#)
- [Telnet Sessions](#)

## AAA Local Locked Out Users

The AAA Local Locked Out Users pane lets you view a list of users who have been locked out of ASDM because of failed login attempts. You can also clear selected lockout conditions or all lockouts.

### Fields

- Currently locked out users—Displays a list of the currently locked out users.
- Lock Time—Specifies the amount of time that the user has been locked out of the system.
- Failed Attempts—Specifies the number of failed login attempts.
- User—The user name identified with the failed login attempts.
- Clear lockout—Click to clear the selected user lockout condition.
- Clear all lockouts—Click to clear all user lockout conditions. It is good practice to refresh the list of lockout conditions before clearing all lockouts.

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## Authenticated Users

This pane lets you view which users have been authenticated to use the FWSM. Each row represents one user.

### Fields

- User—Displays the username of the person authenticated to use the FWSM.
- IP Address—Displays the IP address of the user authenticated to use the FWSM.
- Dynamic ACL—Displays the dynamic access list of the user authenticated to use the FWSM.

- Inactivity Timeout—Displays the amount of time that the selected user must remain inactive before the session times out and the user is disconnected.
- Absolute Timeout—Displays the amount of time that the selected user can remain connected before the session closes and the user is disconnected.

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## ASDM/HTTPS Sessions

The ASDM/HTTPS pane lets you view currently connected ASDM/HTTPS sessions.

### Fields

- Session ID—Displays the name of a connected ASDM/HTTPS session.
- IP Address—Displays the IP address of each host or network that is allowed to connect to this FWSM.
- Disconnect—Select to disconnect a connected ASDM/HTTPS session.

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## Secure Shell Sessions

The Secure Shell Sessions pane lets you view hosts connected to the FWSM for administrative access using the SSH protocol.

### Fields

- Client—Displays the client type for the selected SSH session.
- User—Displays the user name for the selected SSH session.
- State—Displays the state of the selected SSH session.
- Version—Displays the version of SSH used to connect to the FWSM.
- Encryption (in)—Displays the inbound encryption method used for the selected session.

- Encryption (out)—Displays the outbound encryption method used for the selected session.
- HMAC (in)—Displays the configured HMAC for the selected inbound SSH session.
- HMAC (out)—Displays the configured HMAC for the selected outbound SSH session.
- SID—Displays the secure ID of the selected session.
- Disconnect—Click to disconnect a connected SSH session.

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## Telnet Sessions

The Telnet Sessions pane lets you view currently connected Telnet sessions.

### Fields

- Session ID—Displays the name of a connected Telnet session.
- IP Address—Displays the IP address of each host that is allowed to connect to this FWSM over Telnet.
- Disconnect—Click to disconnect a connected Telnet session.

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## Connection Graphs

The Connection Graphs pane lets you view connection information about the FWSM in graph format. You can view information about NAT and performance monitoring information, including UDP connections, AAA performance, and inspection information. This section includes the following topics:

- [Perfmon](#)
- [Xlates](#)

## Perfmon

The Perfmon pane lets you view certain performance information in a graphical or tabular format. You can choose up to four types of statistics to show in one graph.

To view performance information, perform the following steps:

- 
- Step 1** Choose an existing graph window name to which you want to add a graph type from the Graph Window Title drop-down list. To display graphs in a newly named window, enter a new window title.
- Step 2** In the Available Graphs list, choose the performance information you want to graph. The available statistics include the following:
- AAA Perfmon, which displays the FWSM AAA performance information.
  - Inspection Perfmon, which displays the FWSM inspection performance information.
  - Web Perfmon, which displays the FWSM web performance information, including URL access and URL server requests.
  - Connections Perfmon, which displays the FWSM connections performance information.
  - Xlate Perfmon, which displays the FWSM NAT performance information.
- Step 3** Click **Add** to move the selection from the Available Graphs list to the Selected Graphs list, and then click **Show Graphs**.

The performance information appears in a new window in graphical format. Click the **Table** tab to view the performance information in tabular format. From the View drop-down list, choose the update frequency of the statistics that you want to display. Available options are:

- Real-time data, every 10 seconds
- Last 10 minutes, data every 10 seconds
- Last 60 minutes, data every 1 minute
- Last 12 hours, data every 12 minutes
- Last 5 days, data every 2 hours

Click **Export** in the toolbar to export the statistics to a Microsoft Excel file that you can save on your PC.

Click **Print** to print the performance information for future use.

- Step 4** Click **Remove** to move the selected statistics type from the Selected Graphs list to the Available Graphs list.
- 

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## Xlates

The Xlate pane lets you view the active network address translations in a graphical or tabular format. You can choose up to four types of statistics to show in one graph.

To view NAT information, perform the following steps:

- 
- Step 1** Choose an existing graph window name to which you want to add a graph type from the Graph Window Title drop-down list. To display graphs in a newly named window, enter a new window title.
- Step 2** In the Available Graphs list, choose the NAT information you want to graph. The available statistics include the following:
- Xlate Utilization, which displays the FWSM NAT utilization information.
- Step 3** Click **Add** to move the selection from the Available Graphs list to the Selected Graphs list, and then click **Show Graphs**.

The performance information appears in a new window in graphical format. Click the **Table** tab to view the performance information in tabular format. From the View drop-down list, choose the update frequency of the statistics that you want to display. Available options are:

- Real-time data, every 10 seconds
- Last 10 minutes, data every 10 seconds
- Last 60 minutes, data every 1 minute
- Last 12 hours, data every 12 minutes
- Last 5 days, data every 2 hours

Click **Export** in the toolbar to export the statistics to a Microsoft Excel file that you can save on your PC.

Click **Print** to print the performance information for future use.

- Step 4** Click **Remove** to move the selected statistics type from the Selected Graphs list to the Available Graphs list.
- 

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## CRL

The CRL pane allows you to view or clear associated certificate revocation lists of selected CA certificates.

To view or clear associated CRLs of selected CA certificates, perform the following steps:

- 
- Step 1** Choose the name of the selected certificate from the CA Certificate Name drop-down list.
- Step 2** Click **View CRL** to view the selected CRL.  
The CRL Info area displays detailed CRL information.
- Step 3** Click **Clear CRL** to clear the selected CRL from the cache.
- 

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## DNS Cache

The FWSM provides a local cache of DNS information from external DNS queries that are sent for certain clientless SSL VPN and certificate commands. Each DNS translation request is first looked for in the local cache. If the local cache has the information, the resulting IP address is returned. If the local cache can not resolve the request, a DNS query is sent to the various DNS servers that have been configured. If an external DNS server resolves the request, the resulting IP address is stored in the local cache along with its corresponding hostname.

DNS cache entries are time stamped. The time stamp will be used to age out unused entries. When the entry is added to the cache, the time stamp is initialized. Each time the entry is accessed, the timestamp is updated. At a configured time interval, the DNS cache will check all entries and purge those entries whose time exceeds a configured age-out timer.

If new entries arrive but there is no room in the cache because the size was exceeded or no more memory is available, the cache will be thinned by one third, based on the entries age. The oldest entries will be removed.

To view DNS cache information, perform the following steps:

- 
- Step 1** Choose a row from the DNS Cache table. The table displays the following information:
- Host, the DNS name of the host.
  - IP Address, the address that resolves to the hostname.
  - Permanent, which indicates whether the entry was made through a **name** command.
  - Idle Time, the time elapsed since the FWSM last referred to that entry.
  - Active, which indicates whether the entry has aged out. If there is not adequate space in cache, this entry may be deleted.
- Step 2** Click **Clear Cache** to clear the entire DNS cache.
-

**Modes**

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## System Resources Graphs

The System Resources Graphs panes let you view the status of the FWSM memory, CPU, and block utilization. This section includes the following topics:

- [Blocks](#)
- [CPU](#)
- [Memory](#)

## Blocks

The Blocks pane lets you view the free and used memory blocks in graphical or tabular format. You can choose up to four types of statistics to show in one graph window.

To view the free and used memory blocks, perform the following steps:

- 
- Step 1** Choose an existing graph window name to which you want to add a graph type from the Graph Window Title drop-down list. To display graphs in a newly named window, enter a new window title.
- Step 2** In the Available Graphs list, choose the resource information you want to graph for monitoring. The available statistics include the following:
- Blocks Used displays the FWSM used memory blocks.
  - Blocks Free displays the FWSM free memory blocks.
- Step 3** Click **Add** to move the selection from the Available Graphs list to the Selected Graphs list, and then click **Show Graphs**.

The memory block information appears in a new window in graphical format. Click the **Table** tab to view the memory block information in tabular format. From the View drop-down list, choose the update frequency of the statistics that you want to display. Available options are:

- Real-time data, every 10 seconds
- Last 10 minutes, data every 10 seconds
- Last 60 minutes, data every 1 minute
- Last 12 hours, data every 12 minutes
- Last 5 days, data every 2 hours

Click **Export** in the toolbar to export the statistics to a Microsoft Excel file that you can save on your PC.

Click **Print** to print the performance information for future use.

- Step 4** Click **Remove** to move the selected statistics type from the Selected Graphs list to the Available Graphs list.

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## CPU

The CPU pane lets you view the CPU utilization. You can choose up to four types of statistics to show in one graph window.

To view the CPU utilization, perform the following steps:

- Step 1** Choose an existing graph window name to which you want to add a graph type from the Graph Window Title drop-down list. To display graphs in a newly named window, enter a new window title.
- Step 2** In the Available Graphs list, choose the resource information you want to graph for monitoring. The available statistics include the following:
- CPU Utilization displays the FWSM CPU utilization.
- Step 3** Click **Add** to move the selection from the Available Graphs list to the Selected Graphs list, and then click **Show Graphs**.

The CPU utilization information appears in a new window in graphical format. Click the **Table** tab to view the CPU utilization information in tabular format. From the View drop-down list, choose the update frequency of the statistics that you want to display. Available options are:

- Real-time data, every 10 seconds
- Last 10 minutes, data every 10 seconds
- Last 60 minutes, data every 1 minute
- Last 12 hours, data every 12 minutes
- Last 5 days, data every 2 hours

Click **Export** in the toolbar to export the statistics to a Microsoft Excel file that you can save on your PC.

Click **Print** to print the performance information for future use.

- Step 4** Click **Remove** to move the selected statistics type from the Selected Graphs list to the Available Graphs list.

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—

## Memory

The Memory pane lets you view the memory utilization in graphical or tabular format. You can choose up to four types of statistics to show in one graph window.

To view the memory utilization, perform the following steps:

- 
- Step 1** Choose an existing graph window name to which you want to add a graph type from the Graph Window Title drop-down list. To display graphs in a newly named window, enter a new window title.
- Step 2** In the Available Graphs list, choose the resource information you want to graph for monitoring. The available statistics include the following:
- Free Memory displays the FWSM free memory.
  - Used Memory displays the FWSM used memory.
- Step 3** Click **Add** to move the selection from the Available Graphs list to the Selected Graphs list, and then click **Show Graphs**.

The CPU utilization information appears in a new window in graphical format. Click the **Table** tab to view the CPU utilization information in tabular format. From the View drop-down list, choose the update frequency of the statistics that you want to display. Available options are:

- Real-time data, every 10 seconds
- Last 10 minutes, data every 10 seconds
- Last 60 minutes, data every 1 minute
- Last 12 hours, data every 12 minutes
- Last 5 days, data every 2 hours

Click **Export** in the toolbar to export the statistics to a Microsoft Excel file that you can save on your PC.

Click **Print** to print the performance information for future use.

- Step 4** Click **Remove** to move the selected statistics type from the Selected Graphs list to the Available Graphs list.
- 

### Modes

The following table shows the modes in which this feature is available:

Firewall Mode		Security Context		
Routed	Transparent	Single	Multiple	
			Context	System
•	•	•	•	—